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ABSTRACT

This document reports on a study of the frequency with which professional tasks are performed by industrial arts education teachers in Wisconsin and the importance they attach to those tasks. To obtain data the following questions were asked of junior high, junior-senior high, senior high, and capstone-level teachers: What differences, if any, exist between each set of two teacher groups in their response to the frequency with which they perform their professional tasks? What differences, if any, exist between each set of two teacher groups in their response to the importance they attach to their professional tasks? Data are presented in a series of 45 tables. Examination of those tasks for which responses to either frequency or importance were found to be significantly different between teacher groups is recommended as a step in developing an instructional program to help with professional task development. The study concludes that the teacher groups tend to be drawn from one population in terms of their perceptions of both frequency and importance of their professional tasks. (PD)

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STATEMENT OF THE PROBLEM

In these pages is reported a study of the differences, if any, between the responses of certain industrial education teacher groups to both frequency and importance of the professional tasks they perform.

The industrial education teacher groups are Wisconsin:

1. junior high school industrial arts teachers.
2. junior-senior high school industrial arts teachers.
3. senior high school industrial education teachers.
4. capstone industrial education teachers.

Differences between these above subgroups and "all secondary school industrial education teachers" is not reported since the subgroup differences tend to be modest and it is the subgroups that make up the "all" category.

More specifically, for each combination of the above four teacher groups, data are presented in response to two questions:

1. What differences, if any, exist between each set of two teacher groups in their response to the frequency with which they perform their professional tasks?
2. What differences, if any, exist between each set of two teacher groups in their response to the importance they attach to their professional tasks?

RELATION TO OTHER STUDIES

In August of 1972, a paper was prepared which reviewed the development of the task analysis studies at UW-Stout up to that point in time.[1]

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[1]Lawrence S. Wright, Development of Task Analysis Studies in Industrial Education; Graduate College, University of Wisconsin-Stout, Menomonie, Wisconsin, August, 1972.

Since this study is based upon that development, the following outline of it is presented for information:

Introduction
Need for Role Descriptions
Program Development Model
Position Paper Implications
Identification of Tasks
Development of Task Analysis
  Survey Instruments
Processing the Data

Also, in the summer of 1972, a study was completed by six graduate students at UW-Stout.[2] This paper examined the professional tasks of Wisconsin industrial arts teachers (1) who taught in any or all of grades 7, 8 and/or 9 or whether they also taught in senior high school or not, (2) who taught in any or all of grades 10, 11 or 12 whether they also taught in junior high school or not, and (3) who taught Capstone industrial education courses.

In the belief that a more detailed study of those who taught only grades 7, 8 and/or 9; those who taught 7, 8 and/or 9 and 10, 11 and/or 12; those who taught 10, 11 and/or 12 but not Capstone courses; and those who taught Capstone courses without regard to other levels at which they might be teaching; this study was undertaken.

This study if Part VII in the following series:

Part I: Introduction to the Problem

Part II: Frequency and Importance of Their Professional Tasks as Reported by Wisconsin Junior High School Industrial Arts Teachers

Part III: Frequency and Importance of Their Professional Tasks as Reported by Wisconsin Junior-Senior High School Industrial Arts Teachers

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[2]Daniel Fara, et.al., "Professional Tasks of the Wisconsin Industrial Education Teacher" (unpublished Plan B investigation, University of Wisconsin-Stout, 1972.)

Part IV: Frequency and Importance of Their Professional Tasks as Reported by Wisconsin Senior High School Industrial Education Teachers

Part V: Frequency and Importance of Their Professional Tasks as Reported by Wisconsin Capstone Industrial Education Teachers

Part VI: Frequency and Importance of Their Professional Tasks as Reported by All Wisconsin Secondary School Industrial Education Teachers

Part VII: Significant Differences Between Selected Wisconsin Industrial Education Teacher Groups with Respect to (1) Frequency and (2) Importance of Their Professional Tasks

Part VIII: Importance of Industrial Education Teacher's Professional Tasks as Seen by a Jury of Selected Leaders in Education, Together with Significant Differences Between Responses of Selected Wisconsin Industrial Education Teacher Groups and the Jury

DESIGN OF THE STUDY

It may be recalled from Part I of this study that descriptive terms were set forth as they pertained to both frequency and importance of median points for each task. These are repeated for information in Tables 1 and 2.

To study the differences between teacher groups, each pair of third-level task was subjected to a test of significance of differences.

Because the data was ordinal and because the number of cases was appropriate, the Kolmogorov-Smirnov two-sample test for large numbers was used (n_1 and n_2 are larger than 40 and n_1 and n_2 need not be equal).[3]

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[3]Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences, New York; McGraw-Hill Book Company, Inc., 1956, p. 127-136.

In this test, the largest difference between cumulative percentages of responses to each of the five categories is calculated. If the value of this difference is equal to or larger than the critical value, a significant difference is said to exist at the level of confidence chosen. Comparisons were identified at the .05 and the .01 level of confidence. These calculations were made by computer.

TABLE 1

Median Points and Descriptive Terms Related to FREQUENCY of Task Performance

Range of Median Points	Descriptive Terms
4.50 and higher	Weekly or more often
3.50 - 4.49	About once per grading period
2.50 - 3.49	About once per semester
1.50 - 2.49	About once per year
1.49 and lower	Do not perform

TABLE 2

Median Points and Descriptive Terms Related to IMPORTANCE of Task

Range of Median Points	Descriptive Terms
4.50 and higher	Essential
3.50 - 4.49	Very important
2.50 - 3.49	Moderately important
1.50 - 2.49	Slightly important
1.49 and lower	Unimportant

It was not believed fruitful to use this test at the second- or first-level since the responses to these tasks were cumulations of responses.

Comparisons of the tasks receiving low ratings is made since these tasks are eligible for omission from the task listing as valid tasks for a particular teacher group. These comparisons are made simply on the basis of median points and the descriptive terms assigned as in Table 1 and 2. Low ratings for frequency were those reported as "do not perform" by the respondents. Low ratings for importance were those reported as "unimportant" or "slightly important" by the respondents.

THE JUNIOR AND JUNIOR-SENIOR HIGH SCHOOL INDUSTRIAL ARTS TEACHER GROUPS

Teaching Experience

Data presented in Table 3 show the number and percentages of Wisconsin junior and junior-senior high school industrial arts teachers reporting length of teaching experience in each of five categories. It may be seen that within each category of years of experience, none varies as much as 5 percent when comparing the junior with junior-senior high school teachers.

In using the Kolmogorov-Smirnov two-sample test, no significant difference was found between the two groups in length of teaching experience.

TABLE 3

Teaching Experience of 215 Wisconsin Junior and 267 Junior-Senior High School Industrial Arts Teachers

Teaching Experience in Years	Junior High School		Junior-Senior High School	
	N	%	N	%
1 - 2	37	17.2	54	20.2
3 - 5	58	27.0	64	23.9
6 - 10	48	22.3	68	25.5
11 - 15	31	14.4	43	16.1
More than 15	41	19.1	38	14.3
Totals	215	100.0	267	100.0

Frequency

Data in this section are used to compare the frequency of task performance of junior with junior-senior high school industrial arts teacher groups.

Significance studies. Data are presented in Table 4 which show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were found to be significantly different when comparing frequency of responses of junior with junior-senior high school industrial arts teacher groups.

Three hundred twenty-one, or 98.2 percent, of the 327 third-level tasks were found to have no significant difference between responses of the two groups. This indicates junior and junior-senior high school teacher groups reported performing all but six of the third-level tasks with the same level of frequency.

TABLE 4

Number and Percentage of "No Significant" and "Significant" Differences of Response to Frequency of Third-Level Tasks Among Junior and Junior-Senior High School Industrial Arts Teacher Groups

Code	First-Level Task	Third-Level Task Differences				
			"No Significant"		"Significant"	
		N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	54	100.0	0	0.0
3.0	Design Instruction	44	44	100.0	0	0.0
4.0	Nurture Humaneness	26	26	100.0	0	0.0
5.0	Facilitate Learning	39	38	96.4	1	3.6
6.0	Manage the Learning Environment	33	31	94.0	2	6.0
7.0	Provide Professional Service	38	36	94.7	2	5.3
8.0	Utilize Research	33	32	97.0	1	3.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	23	100.0	0	0.0
	Totals	327	321	98.2	6	1.8

A comparison of medians of performance ratings of task performance of the junior and junior-senior high school industrial arts teacher groups was made and may be seen in Table 5. The reader may observe the direction of differences and the significance level for each task.

TABLE 5

Third-Level Tasks for which Statistically Significant Differences in the Frequency of Task Performance were Found between Wisconsin Junior and Junior-Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Frequency of Task Performance		Significance Level
		Jr. H.S.	Jr.-Sr. H.S.	
5.1.7	Conduct field trips and other outside-class activities	1.300	2.346	.01
6.1.1	Identify and develop an industrial education program and the facility to house it	1.404	2.263	.01
6.4.3	Keep equipment and tool inventories	4.055	2.964	.05
7.1.10	Assist students in securing and filling out job applications	1.067	1.395	.05
7.7.6	Demonstrate effective techniques and methods for observation	3.250	4.652	.05
8.5.2	Assess and respond to educational research instruments	3.526	2.805	.05

Low frequency ratings. Tasks receiving median values of 1.499 or less were those characterized by the respondents as "do not perform." It can be observed in Table 6 that 37 third-level and five second-level tasks were rated as "do not perform" by both the junior and junior-senior high school teacher groups.

TABLE 6

Tasks Receiving Low (Do Not Perform) Frequency Ratings by Both Junior and Junior-Senior High School Industrial Arts Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.7.2	Consult with industrial and educational advisory board
2.7.5	Prepare follow-up studies of graduates of the program
2.8.7	Plan an educational program for the consumers of a proposed change so that they may see the value of the change
6.4.6	Keep records of federal and state funding programs
7.1.10	Assist students in securing and filling out job applications
7.2.3	Initiate and organize special community service committees as needed
7.2.4	Participate in school accreditation visits
7.3.4	Sponsor student club activities
7.5.1	Organize and conduct workshops and in-service educational programs
7.5.2	Develop adult evening extension programs
7.5.3	Initiate remedial and summer programs for students
7.5.4	Serve as advisor to educational suppliers in development of new resources and instructional materials
7.6.2	Write reviews of new tests, instructional aids, and media for education journals

Code Number	Task
	THIRD-LEVEL TASKS
7.6.3	Develop written instructional materials for publication
7.7.1	Provide student-teacher with orientation to the school, classroom and community
7.7.2	Prepare the class for the arrival of student-teachers
7.7.3	Assign teaching responsibilities to student-teacher
7.7.4	Create situations so that the student-teacher can initiate the instruction activities
7.7.7	Observe student-teachers' performance in the classroom
7.7.8	Offer criticism, encouragement and suggestions in joint evaluation with student-teacher
7.7.9	Make formal evaluations of student-teacher's performance
8.2.2	Write a rationale for a research study including a review of literature
8.2.4	Select and describe the research design to be used in a proposed research study
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.2.8	Prepare a budget estimate in fiscal terms for a research study
8.2.9	Submit research proposal to appropriate funding bodies
8.3.1	Collect research data by appropriate methods, e.g., historical descriptive, experimental
8.4.1	Complete preparation of preliminary draft of research report, e.g.: introduction, methods, body, conclusions, implications, bibliography, appendices
8.4.2	Formally review and revise preliminary draft of research report
8.4.3	Complete final draft of research report

Code Number	Task
8.5.3	Organize and set-up pilot programs in cooperation with other researchers
9.2.8	Use computer to assist in analyzing test results
9.3.5	Administer standardized tests
10.1.1	Conduct program-level follow-up study
10.1.5	Select (or design) and administer tests of psychomotor abilities for evaluation of programs
10.1.6	Consult advisory committees to determine quality of instructional program
	SECOND-LEVEL TASKS
7.5	Develop programs of professional service
7.6	Contribute to literature of the field through technical and/or professional writing
7.7	Supervise student-teachers
8.2	Prepare proposals for researching a problem
8.4	Write research reports
	FIRST-LEVEL TASKS
	No first-level tasks were rated "do not perform" by either group.

Importance

Data presented in this section are used to compare the importance attached to tasks by the junior and junior-senior high school industrial arts teacher groups.

Significance studies. Data presented in Table 7 show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were significantly different when comparing importance attached to tasks by junior and junior-senior high school teacher groups.

Three hundred twenty-six, or 99.7 percent, were found to have no significant difference. This indicates junior and junior-senior high school teachers reported for all but one third-level task the same view of the level of importance.

TABLE 7

Number and Percentage of "No Significant" and "Significant" Differences of Response to Importance of Third-Level Tasks Among Junior and Junior-Senior High School Industrial Arts Teacher Groups

		Third-Level Task Differences				
			"No Significant"		"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	54	100.0	0	0.0
3.0	Design Instruction	44	44	100.0	0	0.0
4.0	Nurture Humaneness	26	26	100.0	0	0.0
5.0	Facilitate Learning	39	39	100.0	0	0.0
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	37	97.4	1	2.6
8.0	Utilize Research	33	33	100.0	0	0.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	23	100.0	0	0.0
	Totals	327	326	99.7	1	0.3

A comparison of medians of importance ratings for tasks of the junior and junior-senior high school industrial arts teacher groups may be seen in Table 8.

Low importance ratings. Tasks receiving median values of 1.500 to 2.499 were rated "slightly important"; those 1.499 and less were rated "unimportant." Both categories were considered to be low importance ratings. It can be seen in Table 9 that 14 third-level tasks and two second-level tasks were rated as "slightly important" or lower by both the junior and the junior-senior high school teacher groups.

TABLE 8

Third-Level Tasks for which Statistically Significant Differences in the Importance of Task Performance were Found between Wisconsin Junior and Junior-Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Importance of Task Performance		Significance Level
		Jr. H.S.	Jr.-Sr. H.S.	
7.1.1	Provide students with occupational information	3.818	4.261	.05

TABLE 9

Tasks Receiving Low (Slightly Important) Importance Ratings by Both Junior and Junior-Senior High School Industrial Arts Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.3.1	Identify various group cultures that may compose target populations for programs
7.2.3	Initiate and organize special community service committees as needed
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
7.6.3	Develop written instructional materials for publication
8.2.1	Develop a concise statement of the research problem
8.2.2	Write a rationale for a research study including a review of literature
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.2.9	Submit research proposal to appropriate funding bodies
8.3.2	Analyze and interpret data collected for research studies
8.4.1	Complete preparation of preliminary draft of research report, e.g.: introduction, methods, body, conclusions, implications, bibliography, appendices
8.4.2*	Formally review and revise preliminary draft of research report
8.4.3	Complete final draft of research report
9.2.8**	Use computer to assist in analyzing test results

Code Number	Task
	SECOND-LEVEL TASKS
8.2	Prepare proposals for researching a problem
8.4	Write research reports
	FIRST-LEVEL TASKS
	No first-level task was rated as low as "slightly important" by either group.

*The junior-senior high school group rated this task as "unimportant"; the junior high school group rated it "slightly important."

**Both groups rated this task as "unimportant."

Summary of the Junior and Junior-Senior High School Teacher Groups

There was no significant difference in teaching experience between the junior and junior-senior high school industrial arts teacher groups.

Junior as compared with junior-senior high school industrial arts teachers reported performing third-level tasks with the same frequency on 321 of 327 tasks.

Both junior and junior-senior high school industrial arts teachers reported that they do not perform 57 of the third-level and five of the second-level tasks.

Junior as compared with junior-senior high school industrial arts teacher responses showed that they attach the same importance value to 326 of the 327 third-level tasks.

Both junior and junior-senior high school industrial arts teachers responded with low importance ratings to 14 of the same third-level tasks and to two of the second-level tasks.

These data seem to indicate that junior and junior-senior high school industrial arts teachers in Wisconsin do not vary appreciably either in frequency of performance nor in importance attached to their professional tasks.

THE JUNIOR AND SENIOR HIGH SCHOOL INDUSTRIAL EDUCATION TEACHER GROUPS

Teaching Experience

Data presented in Table 10 show the number and percentages of Wisconsin junior and senior high school industrial education teachers reporting length of teaching experience in each of five categories.

It may be seen within the "3 - 5" and the "More than 15" categories that there are about 10 percentage points of difference between groups. It would appear that junior high school industrial arts teachers may not be quite as experienced in length of service as senior high school industrial education teachers. This was born out by the Kolmogorov-Smirnov two-sample test. The difference found between the junior and senior high school groups was significant at the .05 level.

TABLE 10

Teaching Experience of 215 Wisconsin Junior and 196 Senior High School Industrial Education Teachers

Teaching Experience in Years	Junior High School		Senior High School	
	N	%	N	%
1 - 2	37	17.2	37	18.9
3 - 5	58	27.0	33	16.8
6 - 10	48	22.3	41	20.9
11 - 15	31	14.4	30	15.3
More than 15	41	19.1	55	28.1
Totals	215	100.0	196	100.0

Frequency

Data in this section are used to compare the frequency of task performance of junior with senior high school industrial education teacher groups.

Significance studies. Data are presented in Table 11 which show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were found to be significantly different when comparing frequency of

responses of junior with senior high school industrial education teacher groups.

Three hundred twenty-three, or 98.8 percent, of the 327 third-level tasks were found to have no significant difference between responses of the two groups. This indicates junior and senior high school teacher groups reported performing all but four of the third-level tasks with the same level of frequency.

TABLE 11

Number and Percentage of "No Significant" and "Significant" Differences of Response to Frequency of Third-Level Tasks Among Junior and Senior High School Industrial Education Teacher Groups

		Third-Level Task Differences				
			"No Significant"		"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	53	98.2	1	1.8
3.0	Design Instruction	44	44	100.0	0	0.0
4.0	Nurture Humaneness	26	26	100.0	0	0.0
5.0	Facilitate Learning	39	39	100.0	0	0.0
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	36	94.7	2	5.3
8.0	Utilize Research	33	33	100.0	0	0.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	22	95.6	1	4.4
	Totals	327	323	98.8	4	1.2

A comparison of medians of performance ratings of task performance of the junior and senior high school industrial education teacher groups was made and may be seen in Table 12. The reader may observe the direction of differences and the significance level for each of the four tasks.

Low frequency ratings. Tasks receiving median values of 1.499 or less were those characterized by the respondents as "do not perform." It can be observed in Table 13 that 34 third-level and six second-level tasks were rated as "do not perform" by both the junior and senior high school teacher groups.

TABLE 12

Third-Level Tasks for which Statistically Significant Differences in the Frequency of Task Performance were found between Wisconsin Junior and Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Frequency of Task Performance		Significance Level
		Jr. H.S.	Sr. H.S.	
2.4.6	Structure the content from which to draw for program-level curriculum development	2.875	2.900	.05
7.1.9	Write letters of recommendation	1.470	2.461	.05
7.1.10	Assist students in securing and filling out job applications	1.067	2.250	.01
10.2.1	Determine interests, abilities and experiences of students entering the program	3.593	2.692	.05

Table 13

Tasks Receiving Low (Do Not Perform) Frequency Ratings by Both Junior and Senior High School Industrial Education Teacher Groups

Code Number	Task
	THIRD LEVEL TASKS
2.2.8	Select published taxonomy or develop a taxonomy of industry
2.7.2	Consult with industrial and educational advisory board
2.7.5	Prepare follow-up studies of graduates of the program
6.4.6	Keep records of federal and state funding programs
7.2.3	Initiate and organize special community service committees as needed
7.2.4	Participate in school accreditation visits
7.3.3	Serve as class advisor
7.3.4	Sponsor student club activities
7.5.1	Organize and conduct workshops and in-service educational programs
7.5.2	Develop adult evening extension programs
7.5.3	Initiate remedial and summer programs for students
7.5.4	Serve as advisor to educational suppliers in development of new resources and instructional materials
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
7.6.3	Develop written instructional materials for publication
7.7.2	Prepare the class for the arrival of student-teachers
7.7.3	Assign teaching responsibilities to student-teacher
7.7.4	Create situations so that the student-teacher can initiate the instruction activities

Code Number	Task
	THIRD-LEVEL TASKS
7.7.7	Observe student-teachers' performance in the classroom
7.7.8	Offer criticism, encouragement and suggestions in joint evaluation with student-teacher
7.7.9	Make formal evaluations of student-teacher's performance
8.2.2	Write a rationale for a research study including a review of literature
8.2.4	Select and describe the research design to be used in a proposed research study
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.2.8	Prepare a budget estimate in fiscal terms for a research study
8.2.9	Submit research proposal to appropriate funding bodies
8.4.1	Complete preparation of preliminary draft of research report, e.g.: introduction, methods, body, conclusions, implications, bibliography, appendices
8.4.2	Formally review and revise preliminary draft of research report
8.4.3	Complete final draft of research report
8.5.3	Organize and set-up pilot programs in cooperation with other researchers
9.2.8	Use computer to assist in analyzing test results
9.3.5	Administer standardized tests
10.1.5	Select (or design) and administer tests of psychomotor abilities for evaluation of programs
10.1.6	Consult advisory committees to determine quality of instructional program

Code Number	Task
	SECOND-LEVEL TASKS
7.2	Participate in service activities of the educational and civic community
7.5	Develop programs of professional service
7.6	Contribute to literature of the field through technical and/or professional writing
7.7	Supervise student teachers
8.2	Prepare proposals for researching a problem
8.4	Write research reports
	FIRST-LEVEL TASKS
	No first-level tasks were rated "do not perform" by either group.

Importance

Data presented in this section are used to compare the importance attached to tasks by the junior and junior-senior high school industrial arts teacher groups.

Significance studies. Data presented in Table 14 show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were significantly different when comparing importance attached to tasks by junior and senior high school teacher groups.

Three hundred twenty-six, or 99.7 percent, were found to have no significant difference. This indicates junior and senior high school teachers reported for all but one third-level task the same view of the level of importance.

TABLE 14

Number and Percentage of "No Significant" and "Significant" Differences of Response to Importance of Third-Level Tasks Among Junior and Senior High School Industrial Education Teacher Groups

		Third-Level Task Differences				
			"No Significant"		"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	53	98.2	1	1.8
3.0	Design Instruction	44	44	100.0	0	0.0
4.0	Nurture Humaneness	26	26	100.0	0	0.0
5.0	Facilitate Learning	39	39	100.0	0	0.0
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	38	100.0	0	0.0
8.0	Utilize Research	33	33	100.0	0	0.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	23	100.0	0	0.0
	Totals	327	326	99.7	1	0.3

A comparison of medians of importance ratings for task of the junior and senior high school industrial education teacher groups may be seen in Table 15.

Low importance ratings. Tasks receiving median values of 1.500 to 2.499 were rated "slightly important"; those 1.499 and less were rated "unimportant." Both categories were considered to be low importance ratings. It can be seen in Table 16 that 15 third-level tasks and two second-level tasks were rated as "slightly important" or lower by both the junior and the senior high school teacher groups.

TABLE 15

Third-Level Tasks for which Statistically Significant Differences in the Importance of Task Performance were found between Wisconsin Junior and Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Importance of Task Performance		Significance Level
		Jr. H.S.	Sr. H.S.	
2.2.4	Consult available industrial personnel as part of the study of the institution of industry	3.066	3.933	.05

TABLE 16

Tasks Receiving Low (Slightly Important) Importance Ratings by Both Junior and Senior High School Industrial Education Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.3.1	Identify various group cultures that may compose target populations for programs
7.2.3	Initiate and organize special community service committees as needed
7.5.2	Develop adult evening extension programs
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
7.6.3	Develop written instructional materials for publication
8.2.1	Develop a concise statement of the research problem
8.2.2*	Write a rationale for a research study including a review of literature
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.2.9	Submit research proposal to appropriate funding bodies
8.3.2	Analyze and interpret data collected for research studies
8.4.1	Complete preparation of preliminary draft of research report, e.g.: introduction, methods, body, conclusions, implications, bibliography, appendices
8.4.2	Formally review and revise preliminary draft of research report
8.4.3*	Complete final draft of research report
9.2.8**	Use computer to assist in analyzing test results

Code Number	Task
	SECOND-LEVEL TASKS
8.2	Prepare proposals for researching a problem
8.4	Write research reports
	FIRST-LEVEL TASKS
	No first-level task was rated as low as "slightly important" by either group.

*The senior high school group rated this task as "unimportant"; the junior high school group rated it "slightly important."

**Both groups rated this task as "unimportant."

Summary of the Junior and Senior High School Teacher Groups

There was a significant difference in length of teaching experience between the junior and senior high school industrial education teacher groups with a larger percentage of the senior high school group having "More than 15 years" experience.

Junior as compared with senior high school industrial education teachers reported performing third-level tasks with the same frequency on 323 of 327 tasks.

Both junior and senior high school industrial education teachers reported that they do not perform 34 of the third-level and six of the second-level tasks.

Junior as compared with senior high school industrial education teacher responses showed that they attach the same importance value to 326 of the 327 third-level tasks.

Both junior and senior high school industrial education teachers responded with low importance ratings to 15 of the same third-level tasks and to two of the second-level tasks.

These data seem to indicate that junior and senior high school industrial education teachers in Wisconsin do not vary appreciably either in the frequency of performance nor in importance they attach to their professional tasks.

THE JUNIOR HIGH SCHOOL AND CAPSTONE INDUSTRIAL EDUCATION TEACHER GROUP

Teaching Experience

Data presented in Table 17 show the number and percentages of Wisconsin junior high school and capstone industrial education teachers

reporting length of teaching experience in each of five categories. It may be seen that within each category of years of experience the largest variation is 6.2 percent in the first and third categories among the junior high school and capstone teachers. It would seem that there are fewer beginning teachers in the capstone ranks and a somewhat greater percentage in the "6 to 10 years of experience" category than is the case for junior high school industrial arts teachers. However, no significant difference was found when applying the Kolmogorov-Smirnov two-sample test to these data.

TABLE 17

Teaching Experience of 215 Wisconsin Junior High School and 142 Industrial Education Teachers

Teaching Experience in Years	Junior High School		Capstone	
	N	%	N	%
1 - 2	37	17.2	17	12.0
3 - 5	58	27.0	41	28.8
6 - 10	48	22.3	39	27.5
11 - 15	31	14.4	18	12.7
More than 15	41	19.1	27	19.0
Totals	215	100.0	142	100.0

Frequency

Data in this section are used to compare the frequency of task performance of junior high school with capstone industrial education teacher groups.

Significance studies. Data are presented in Table 18 which show the number and percentage of third-level tasks which were not

significantly different as well as those that were found to be significantly different when comparing frequency responses of junior high school with capstone industrial education teacher groups.

Three hundred nine, or 94.5 percent, of the 327 third-level tasks were found to have no significant difference between responses of the two groups. This indicates junior and junior-senior high school teacher groups reported performing all but 18 of the third-level tasks with the same level of frequency.

TABLE 18

Number and Percentage of "No Significant" and "Significant" Differences of Response to Frequency of Third-Level Tasks Among Junior and Junior-Senior High School Industrial Arts Teacher Groups

		Third-Level Task Differences				
		"No Significant"			"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	49	90.8	5	9.2
3.0	Design Instruction	44	43	97.8	1	2.2
4.0	Nurture Humaneness	26	25	96.1	1	3.9
5.0	Facilitate Learning	39	37	94.9	2	5.1
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	33	86.9	5	13.1
8.0	Utilize Research	33	32	97.0	1	3.0
9.0	Evaluate Instruction	22	21	95.5	1	4.5
10.0	Evaluate Programs	23	21	91.3	2	8.7
	Totals	327	309	94.5	18	5.5

A comparison of medians of performance ratings of task performance of the junior high school and capstone industrial education teacher

groups was made and may be seen in Table 19. The reader may observe the direction of differences and the significance level for each task.

Low frequency ratings. Tasks receiving median values of 1.499 or less were those characterized by the respondents as "do not perform." It can be observed in Table 20 that 25 third-level and five second-level tasks were rated as "do not perform" by both the junior high school and capstone teacher groups.

TABLE 19

Third-Level Tasks for which Statistically Significant Differences in the Frequency of Task Performance were Found between Wisconsin Capstone and Junior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Frequency of Task Performance		Significance Level
		Capstone	Jr. H. S.	
2.2.3	Visit and observe representative industries as a source of the body of content for industrial education	3.000	2.105	.05
2.2.4	Consult available industrial personnel as part of the study of the institution of industry	3.041	2.071	.05
2.4.3	Examine previously proposed solution and use on proposed solution to problems and ways to meet human needs through the program	3.727	2.970	.05
2.7.2	Consult with industrial and educational advisory board	2.928	1.366	.05
2.7.5	Prepare follow-up studies of graduates of the program	1.785	1.102	.01
3.4.4	Plan experiences for some students which will prepare them for entry into industrially related occupations or to develop a base for advanced occupational education	4.450	2.950	.01
4.3.7	Work with community service personnel, e.g.; librarians, social workers, clergy, training schools	2.800	1.428	.05
5.1.7	Conduct field trips and other outside-class activities	3.150	1.300	.01
5.5.3	Provide experiences for some students to prepare them for entry into appropriate industrially related occupations or to develop a base for advanced occupational education	4.825	3.538	.01

Item Code	Third-Level Task	Median of Frequency of Task Performance		Significance Level
		Capstone	Jr. H. S.	
7.1.8	Assist students with personal and occupational problems	4.593	3.583	.05
7.1.10	Assist students in securing and filling out job applications	2.250	1.067	.01
7.1.11	Involve resource persons and agencies in assisting students	3.318	1.750	.01
7.2.1	Serve on and chair school and community committees	2.642	1.452	.05
7.2.3	Initiate and organize special community service committees as needed	1.636	1.030	.01
8.2.9	Submit research proposal to appropriate funding bodies	1.538	1.083	.05
9.4.1	Analyze and interpret results of instructional measurement	4.000	3.250	.05
10.1.6	Consult advisory committees to determine quality of instructional program	2.642	1.450	.01
10.2.1	Determine interests, abilities and experiences of students entering the program	2.464	3.593	.05

TABLE 20

Tasks Receiving Low (Do Not Perform) Frequency Ratings by Both Junior and Junior-Senior High School Industrial Arts Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.2.8	Select published taxonomy or develop a taxonomy of industry
7.3.3	Serve as class advisor
7.3.4	Sponsor student club activities
7.5.1	Organize and conduct workshops and in-service educational programs
7.5.2	Develop adult evening extension programs
7.5.3	Initiate remedial and summer programs for students
7.5.4	Serve as advisor to educational suppliers in development of new resources and instructional materials
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
7.6.3	Develop written instructional materials for publication
7.7.2	Prepare the class for the arrival of student-teachers
7.7.3	Assign teaching responsibilities to student-teacher
7.7.4	Create situations so that the student-teacher can initiate the instruction activities
7.7.7	Observe student-teachers' performance in the classroom
8.2.2	Write a rationale for a research study including a review of literature
8.2.4	Select and describe the research design to be used in a proposed research study
8.2.5	Select a population for a particular research study

Code Number	Task
	THIRD-LEVEL TASKS
8.2.7	Develop a management strategy for the control of the research study
8.2.8	Prepare a budget estimate in fiscal terms for a research study
8.4.1	Complete preparation of preliminary draft of research report, e.g.: introduction, methods, body, conclusions, implications, bibliography, appendices
8.4.2	Formally review and revise preliminary draft of research report
8.4.3	Complete final draft of research report
8.5.3	Organize and set-up pilot programs in cooperation with other researchers
8.6.4	Assess the validity and reliability of research procedures
9.2.8	Use computer to assist in analyzing test results
9.3.5	Administer standardized tests
	SECOND-LEVEL TASKS
7.5	Develop programs of professional service
7.6	Contribute to literature of the field through technical and/or professional writing
7.7	Supervise student teachers
8.2	Prepare proposals for researching a problem
8.4	Write research reports
	FIRST-LEVEL TASKS
	No first-level tasks were rated on "do not perform" by either group.

Importance

Data presented in this section are used to compare the importance attached to tasks by the junior high school and capstone industrial education teacher groups.

Significance studies. Data presented in Table 21 show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were significantly different when comparing importance attached to tasks by junior high school and capstone teacher groups.

TABLE 21

Number and Percentage of "No Significant" and "Significant" Differences of Response to Importance of Third-Level Tasks Among Junior High School and Capstone Industrial Education Teacher Groups

		Third-Level Task Differences				
		"No Significant"			"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	53	98.2	1	1.8
3.0	Design Instruction	44	43	97.8	1	2.2
4.0	Nurture Humaneness	26	25	96.1	1	3.9
5.0	Facilitate Learning	39	37	94.9	2	5.1
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	35	92.1	3	7.9
8.0	Utilize Research	33	33	100.0	0	0.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	23	100.0	0	0.0
	Totals	327	319	97.6	8	2.4

Three hundred nineteen, or 97.6 percent, were found to have no significant difference. This indicates junior high school and capstone industrial education teachers reported for all but eight third-level tasks the same view of the level of importance.

A comparison of medians of importance ratings for tasks of the junior high school and capstone industrial education teacher groups may be seen in Table 22.

Low importance ratings. Tasks receiving median values of 1.500 to 2.499 were rated "slightly important"; those 1.499 and less were rated "unimportant." Both categories were considered to be low importance ratings. It can be seen in Table 23 that ten third-level tasks and one second-level task were rated as "slightly important" or lower by both the junior high school and the capstone groups.

TABLE 22

Third-Level Tasks for which Statistically Significant Differences in the Importance of Task Performance were Found between Wisconsin Capstone and Junior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Importance of Task Performance		Significance Level
		Capstone	Jr. H. S.	
2.7.5	Prepare follow up studies of graduates of the program	3.291	2.529	.05
3.4.4	Plan experiences for some students which will prepare them for entry into industrially related occupations or to develop a base for advanced occupational education	4.600	3.437	.01
4.1.1	Encourage students to think of alternatives and to recognize knowledge as imperfect, incomplete and tentative	4.705	3.650	.05
5.2.8	Provide students immediate feedback to tests	4.300	4.838	.05
5.5.3	Provide experiences for some students to prepare them for entry into appropriate industrially related occupations or to develop a base for advanced occupational education	4.789	3.590	.01
7.1.10	Assist students in securing and filling out job applications	3.166	2.142	.05
7.3.3	Serve as class advisor	1.500	2.714	.01
7.7.8	Offer criticism, encouragement and suggestions in joint evaluation with student-teacher	3.333	4.766	.01

TABLE 23

Tasks Receiving Low (Slightly Important) Importance Ratings by Both Junior High School and Capstone Industrial Education Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.3.1	Identify various group cultures that may compose target populations for programs
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
8.2.2	Write a rationale for a research study including a review of literature
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.4.2	Formally review and revise preliminary draft of research report
8.4.3	Complete final draft of research report
8.5.3	Organize and set-up pilot programs in cooperation with other researchers
8.6.4	Assess the validity and reliability of research procedures
9.2.8*	Use computer to assist in analyzing test results
	SECOND-LEVEL TASKS
8.4	Write research reports
	FIRST-LEVEL TASKS
	No first-level task was rated as low as "slightly important" by either group.

Summary of the Junior High School and Capstone Teacher Groups

There was no significant difference in length of teaching experience by capstone as compared with junior high school industrial education teachers.

Junior high school as compared with capstone industrial education teachers reported performing third-level tasks with the same frequency on 309 of 327 tasks.

Both junior high school and capstone industrial education teachers reported that they do not perform 25 of the third-level and five of the second-level tasks.

Junior high school as compared with capstone industrial education teacher responses showed that they attach the same importance value to 319 of the 327 third-level tasks.

Both junior high school and capstone industrial education teachers responded with low importance ratings to nine of the same third-level tasks and to one of the second-level tasks.

These data seem to indicate that junior high school and capstone industrial education teachers in Wisconsin do not vary appreciably either in frequency of performance nor in importance they attach to their professional tasks.

THE JUNIOR-SENIOR AND SENIOR HIGH SCHOOL INDUSTRIAL EDUCATION TEACHER GROUPS

Teaching Experience

Data presented in Table 24 show the number and percentages of Wisconsin junior-senior and senior high school industrial education teachers reporting length of teaching experience in each of five

categories. It may be seen within the "3 - 5" and the "6 - 10" categories that a higher percentage of junior-senior than senior high school teachers appears. In the "More than 15" category, the difference in percentage of 13.8 between the two groups favors the senior high school industrial education in terms of length of teaching experience. Accordingly, it would appear that Wisconsin senior high school industrial education teachers are somewhat more experienced than the junior-senior high school group. This was born out by the Kolmogorov-Smirnov two-sample test. A significant difference at the .01 level was found.

TABLE 24

Teaching Experience of 267 Wisconsin Junior-Senior and 196 Senior High School Industrial Education Teachers

Teaching Experience in Years	Junior-Senior High School		Senior High School	
	N	%	N	%
1 - 2	54	20.2	37	18.9
3 - 5	64	23.9	33	16.8
6 - 10	68	25.5	41	20.9
11 - 15	43	16.1	30	15.3
More than 15	38	14.3	55	28.1
Totals	267	100.0	196	100.0

Frequency

Data in this section are used to compare the frequency of task performance of junior-senior with senior high school industrial arts teacher groups.

Significance studies. Data are presented in Table 25 which show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were found to be significantly different when comparing frequency responses of junior-senior with senior high school industrial education teacher groups.

Three hundred twenty-two, or 98.5 percent, of the 327 third-level tasks were found to have no significant difference between responses of the two groups. This indicates junior-senior and senior high school teacher groups reported performing all but five of the third-level tasks with the same level of frequency.

TABLE 25

Number and Percentage of "No Significant" and "Significant" Differences of Response to Frequency of Third-Level Tasks Among Junior-Senior and Senior High School Industrial Education Teacher Groups

		Third-Level Task Differences				
			"No Significant"		"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	54	100.0	0	0.0
3.0	Design Instruction	44	44	100.0	0	0.0
4.0	Nurture Humaneness	26	26	100.0	0	0.0
5.0	Facilitate Learning	39	39	100.0	0	0.0
6.0	Manage the Learning Environment	33	31	94.0	2	6.0
7.0	Provide Professional Service	38	37	97.4	1	2.6
8.0	Utilize Research	33	32	97.0	1	3.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	22	95.6	1	4.4
	Totals	327	322	98.5	5	1.5

A comparison of medians of performance ratings of task performance of the junior-senior and senior high school industrial arts teacher groups was made and may be seen in Table 26. The reader may observe the direction of differences and the significance level for each task.

Tasks receiving low frequency ratings. Task receiving median values of 1.499 or less were those characterized by the respondents as "do not perform." It can be observed in Table 27 that 36 third-level and five second-level tasks were rated as "do not perform" by both the junior-senior and senior high school teacher groups.

TABLE 26

Third-Level Tasks for which Statistically Significant Differences in the Frequency of Task Performance were Found between Wisconsin Senior and Junior-Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Frequency of Task Performance		Significance Level
		Sr. H. S.	Jr.-Sr. H. S.	
6.1.5	Prepare a list of specific equipment and tools appropriate to program level and needs	3.125	2.152	.05
6.3.1	Develop and carry out a routine maintenance schedule	4.710	3.857	.05
7.7.6	Demonstrate effective techniques and methods for observation	3.625	4.652	.05
8.4.3	Complete final draft of research report	1.074	1.452	.05
10.2.1	Determine interests, abilities and experiences of students entering the program	2.692	3.642	.05

TABLE 27

Tasks Receiving Low (Do Not Perform) Frequency Ratings by Both Junior-Senior and Senior High School Industrial Education Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.3.1	Identify various group cultures that may compose target populations for programs
2.7.2	Consult with industrial and educational advisory board
2.7.4	Maintain a program-level instruction evaluation log book
2.7.5	Prepare follow-up studies of graduates of the program
6.4.6	Keep records of federal and state funding programs
7.2.3	Initiate and organize special community service committees as needed
7.2.4	Participate in school accreditation visits
7.3.4	Sponsor student club activities
7.5.1	Organize and conduct workshops and in-service educational programs
7.5.2	Develop adult evening extension programs
7.5.3	Initiate remedial and summer programs for students
7.5.4	Serve as advisor to educational suppliers in development of new resources and instructional materials
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
7.6.3	Develop written instructional materials for publication
7.7.2	Prepare the class for the arrival of student-teachers
7.7.3	Assign teaching responsibilities to student-teacher
7.7.4	Create situations so that the student-teacher can initiate the instruction activities

Code Number	Task
	THIRD-LEVEL TASKS
7.7.5	Hold conferences with student-teacher regarding his performance, progress and problems
7.7.7	Observe student-teachers' performance in the classroom
7.7.8	Offer criticism, encouragement and suggestions in joint evaluation with student-teacher
7.7.9	Make formal evaluations of student-teacher's performance
8.2.2	Write a rationale for a research study including a review of literature
8.2.4	Select and describe the research design to be used in a proposed research study
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.2.8	Prepare a budget estimate in fiscal terms for a research study
8.2.9	Submit research proposal to appropriate funding bodies
8.3.2	Analyze and interpret data collected for research studies
8.4.1	Complete preparation of preliminary draft of research report, e.g.: introduction, methods, body, conclusions, implications, bibliography, appendices
8.4.2	Formally review and revise preliminary draft of research report
8.4.3	Complete final draft of research report
8.5.3	Organize and set-up pilot programs in cooperation with other researchers
9.2.8	Use computer to assist in analyzing test results
9.3.5	Administer standardized tests
10.1.5	Select (or design) and administer tests of psychomotor abilities for evaluation of programs

Code Number	Task
	THIRD-LEVEL TASKS
10.1.6	Consult advisory committees to determine quality of instructional program
	SECOND-LEVEL TASKS
7.5	Develop programs of professional service
7.6	Contribute to literature of the field through technical and/or professional writing
7.7	Supervise student-teachers
8.2	Prepare proposals for researching a problem
8.4	Write research reports
	FIRST-LEVEL TASKS
	No first-level tasks were rated "do not perform" by either group.

Importance

Data presented in this section are used to compare the importance attached to tasks by the junior-senior and senior high school industrial education teacher groups.

Significance studies. Data presented in Table 28 show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were significantly different when comparing importance attached to tasks by junior-senior and senior high school teacher groups.

Three hundred twenty-six, or 99.7 percent, were found to have no significant difference. This indicates junior-senior and senior high school teachers reported for all but one third-level task the same view of the level of importance.

TABLE 28

Number and Percentage of "No Significant" and "Significant" Differences of Response to Importance of Third-Level Tasks Among Junior-Senior and Senior High School Industrial Education Teacher Groups

		Third-Level Task Differences				
			"No Significant"		"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	53	98.2	1	1.8
3.0	Design Instruction	44	44	100.0	0	0.0
4.0	Nurture Humaneness	26	26	100.0	0	0.0
5.0	Facilitate Learning	39	39	100.0	0	0.0
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	38	100.0	0	0.0
8.0	Utilize Research	33	33	100.0	0	0.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	23	100.0	0	0.0
	Totals	327	326	99.7	1	0.3

A comparison of medians of importance ratings for tasks of the junior-senior and senior high school industrial education teacher groups may be seen in Table 29.

Low importance ratings. Tasks receiving median values of 1.500 to 2.499 were rated "slightly important"; those 1.499 and less were rated "unimportant." Both categories were considered to be low importance ratings. It can be seen in Table 30 that 15 third-level tasks and two second-level tasks were rated as "slightly important" or lower by both the junior-senior and the senior high school teacher groups.

TABLE 29

Third-Level Tasks for which Statistically Significant Differences in the Importance of Task Performance were Found between Wisconsin Senior and Junior-Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Importance of Task Performance		Significance Level
		Sr. H. S.	Jr.-Sr. H. S.	
2.4.2	Identify human needs including those of different cultures	3.464	2.944	.05

TABLE 30

Tasks Receiving Low (Slightly Important) Importance Ratings by Both Junior-Senior and Senior High School Industrial Education Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.3.1	Identify various group cultures that may compose target populations for programs
7.2.3	Initiate and organize special community service committees as needed
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
7.6.3	Develop written instructional materials for publication
8.2.1	Develop a concise statement of the research problem
8.2.2*	Write a rationale for a research study including a review of literature
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.2.9	Submit research proposal to appropriate funding bodies
8.3.2	Analyze and interpret data collected for research studies
8.4.1	Complete preparation of preliminary draft of research report, e.g.: introduction, methods, body, conclusions, implications, bibliography, appendices
8.4.2**	Formally review and revise preliminary draft of research report
8.4.3*	Complete final draft of research report
8.6.6	Evaluate the conclusions of a research report
9.2.8***	Use computer to assist in analyzing test results

Code Number	Task
	SECOND-LEVEL TASK
8.2	Prepare proposals for researching a problem
8.4	Write research reports
	FIRST-LEVEL TASK
	No first-level task was rated as low as "slightly important" by either group.

*The senior high school group rated this task as "unimportant"; the junior-senior high school group tated it "slightly important."

**The junior-senior high school group rated this task as "unimportant"; the senior high school group rated it as "slightly important."

***Both groups rated this task as "unimportant."

Summary of the Junior-Senior and Senior High School Teacher Groups

There was a significant difference in teaching experience between junior-senior and senior high school industrial education teacher groups favoring the senior high school group with a larger number of years of experience.

Junior-senior as compared with senior high school industrial education teachers reported performing third-level tasks with the same frequency on 322 of 327 tasks.

Both junior-senior and senior high school industrial education teachers reported that they do not perform 36 of the third-level and five of the second-level tasks.

Junior-senior as compared with senior high school industrial education teacher responses showed that they attach the same importance value to 326 of the 327 third-level tasks.

Both junior and junior-senior high school industrial arts teachers responded with low importance ratings to 15 of the same third-level tasks and to two of the second level tasks.

These data seem to indicate that junior-senior and senior high school industrial education teachers in Wisconsin do not vary appreciably either in frequency nor in importance they attach to their professional tasks.

THE JUNIOR-SENIOR HIGH SCHOOL AND CAPSTONE INDUSTRIAL EDUCATION TEACHER GROUPS

Teaching Experience

Data presented in Table 31 show the number and percentage of teachers in each of five categories of years of teaching experience. There is a smaller percentage of capstone than junior-senior high school teachers in the "1 - 2 years" group and a larger percentage of capstone than junior-senior high school teachers in the "More than 15" group; the reverse situation holds for both the "3 - 5" and "11 - 15" group--it would seem that there are some differences between these two groups with respect to years of teaching experience. However, no significant differences were found between these groups when applying the Kolmogorov-Smirnov two-sample test.

TABLE 31

Teaching Experience of 267 Wisconsin Junior-Senior High School Industrial Arts Teachers and 142 Capstone Industrial Education Teachers

Teaching Experience in Years	Junior-Senior High School Industrial Arts		Capstone Industrial Education	
	N	%	N	%
1 - 2	54	20.2	17	12.0
3 - 5	64	23.9	41	28.8
6 - 10	68	25.5	39	27.5
11 - 15	43	16.1	18	12.7
More than 15	38	14.3	27	19.0
Totals	267	100.0	142	100.0

Frequency

Data in this section compare the frequency of task performance of junior-senior with capstone industrial education teacher groups.

Significance studies. Data are presented in Table 32 which show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were found to be significantly different when comparing frequency responses of junior-senior high school and capstone industrial education teacher groups.

TABLE 32

Number and Percentage of "No Significant" and "Significant" Differences of Response to Frequency of Third-Level Tasks Between Junior-Senior High School and Capstone Industrial Education Teacher Groups

Code	First-Level Task	Third-Level Task Differences				
			"No Significant"		"Significant"	
		N	N	%	N	%
1.0	Improve Individual's Competencies	15	14	93.3	1	6.7
2.0	Design Programs	54	51	94.5	3	5.5
3.0	Design Instruction	44	43	97.8	1	2.2
4.0	Nurture Humaneness	26	26	100.0	0	0.0
5.0	Facilitate Learning	39	38	96.4	1	3.6
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	34	86.8	4	13.2
8.0	Utilize Research	33	32	97.0	1	3.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	21	91.3	2	8.7
	Totals	327	314	96.2	13	3.8

Three hundred fourteen, or 96.2 percent, of the 327 third-level tasks were found to have no significant difference between responses of the two groups.

This indicates junior-senior high school and capstone industrial education teachers reported performing the third-level tasks with about the same frequency.

A comparison of medians of frequency ratings of task performance of the junior-senior high school and capstone teacher groups was made and may be seen in Table 33.

It may be noted that for 10 of the 13 tasks the medians were higher for the capstone teacher group than for the junior-senior high school teacher group.

TABLE 33

Third-Level Tasks for which Statistically Significant Differences in the Frequency of Task Performance were Found between Wisconsin Capstone and Junior-Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Frequency of Task Performance		Significance Level
		Capstone	Jr.-Sr. H. S.	
1.2.1	Attend in-service seminars and workshops	3.071	2.820	.05
2.2.3	Visit and observe representative industries as a source of the body of content for industrial education	3.000	2.000	.05
2.7.2	Consult with industrial and educational advisory board	2.928	1.395	.05
2.7.5	Prepare follow-up studies of graduates of the program	1.785	1.187	.05
3.6.3	Review and select audio-visual resources	2.375	3.312	.01
5.5.3	Provide experiences for some students to prepare them for entry into appropriate industrially related occupations or to develop a base for advanced occupational education	4.825	3.818	.01
7.2.3	Initiate and organize special community service committees as needed	1.636	1.128	.05
7.7.2	Prepare the class for arrival of student teachers	1.400	1.052	.05
7.7.6	Demonstrate effective techniques and methods for observation	2.500	4.652	.05
7.7.7	Observe student-teachers' performance in the classroom	1.428	1.025	.01
8.4.3	Complete final draft of research report	1.068	1.452	.05
10.1.6	Consult advisory committees to determine quality of instructional program	2.642	1.300	.01
10.3.2	Review program-level follow-up studies to ascertain the usefulness of material learned	2.194	1.566	.01

Low frequency ratings. Tasks receiving median values of 1.499 or less were those characterized by the respondents as "do not perform." It can be seen in Table 34 that 27 third-level and five second-level tasks were so rated by both the junior-senior high school and the capstone teacher groups.

TABLE 34

Tasks Receiving Low (Do Not Perform) Frequency Ratings by Both Junior-Senior High School and Capstone Industrial Education Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.3.1	Identify various group cultures that may compose target populations for programs
7.3.4	Sponsor student club activities
7.5.1	Organize and conduct workshops and in-service educational programs
7.5.2	Develop adult evening extension programs
7.5.3	Initiate remedial and summer programs for students
7.5.4	Serve as advisor to educational suppliers in development of new resources and instructional materials
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
7.6.3	Develop written instructional materials for publication
7.7.2	Prepare the class for the arrival of student-teachers
7.7.3	Assign teaching responsibilities to student-teacher
7.7.4	Create situations so that the student-teacher can initiate the instruction activities
7.7.5	Hold conferences with student-teacher regarding his performance, progress and problems
7.7.7	Observe student-teachers' performance in the classroom

Code Number	Task
	THIRD-LEVEL TASKS
8.2.2	Write a rationale for a research study including a review of literature
8.2.4	Select and describe the research design to be used in a proposed research study
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.2.8	Prepare a budget estimate in fiscal terms for a research study
8.4.1	Complete preparation of preliminary draft of research report, e.g.: introduction, methods, body, conclusions, implications, bibliography, appendices
8.4.2	Formally review and revise preliminary draft of research report
8.4.3	Complete final draft of research report
8.5.3	Organize and set-up pilot programs in cooperation with other researchers
8.6.2	Inspect research reports for adequate descriptions of the major elements of the research study
8.6.3	Evaluate the sampling procedures of research reports
8.6.6	Evaluate the conclusions of a research report
9.2.8	Use computer to assist in analyzing test results
9.3.5	Administer standardized tests
	SECOND-LEVEL TASKS
7.5	Develop programs of professional service
7.6	Contribute to literature of the field through technical and/or professional writing
7.7	Supervise student-teachers
8.2	Prepare proposals for researching a problem

Code Number	Task
	SECOND-LEVEL TASKS
8.4	Wrtie research reports
	FIRST-LEVEL TASKS
	No first-level tasks were rated as "do not perform" by either group.

Importance

Data are presented in this section which compare the importance attached to tasks by the junior-senior and capstone teacher groups.

Significance studies. Data presented in Table 35 show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were found to be significantly different when comparing importance attached to tasks by junior-senior high school and capstone teacher groups.

Three hundred twenty-four, or 99.2 percent of the 327 third-level tasks were found to have no significant difference. This indicates junior-senior high school and capstone industrial education teachers differ on their beliefs about task importance very little.

TABLE 35

Number and Percentage of "No Significant" and "Significant" Differences of Response to Importance of Third-Level Tasks Between Junior-Senior High School and Capstone Industrial Education Teacher Groups

		Third-Level Task Differences				
			"No Significant"		"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	54	100.0	0	0.0
3.0	Design Instruction	44	44	100.0	0	0.0
4.0	Nurture Humaneness	26	26	100.0	0	0.0
5.0	Facilitate Learning	39	38	96.4	1	3.6
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	38	100.0	0	0.0
8.0	Utilize Research	33	32	97.0	1	3.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	22	95.6	1	4.4
	Totals	327	324	99.2	3	0.8

A comparison of medians of importance ratings for tasks of the junior-senior high school and capstone teacher groups was made and may be seen in Table 36.

Low importance ratings. Tasks receiving median values of 1.500 to 2.499 were considered "slightly important"; those 1.499 and less were considered "unimportant." Both categories were considered to be low importance ratings. It can be seen in Table 37 that 11 third-level and one second-level tasks received low importance ratings by both the junior-senior high school and capstone teacher groups.

Tasks receiving low ratings by only one of these groups may be seen in Table 37.

TABLE 36

Third-Level Tasks for which Statistically Significant Differences in the Importance of Task Performance were Found between Wisconsin Capstone and Junior-Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Importance of Task Performance		Significance Level
		Capstone	Jr.-Sr. H. S.	
5.5.3	Provide experiences for some students to prepare them for entry into appropriate industrially related occupations or to develop a base for advanced occupational education	4.789	4.100	.05
8.2.1	Develop a concise statement of the research problem	2.954	2.200	.05
10.1.6	Consult advisory committees to determine qulity of instructional program	4.000	3.033	.05

TABLE 37

Tasks Receiving Low (Slightly Important) Importance Ratings by Both Junior-Senior High School and Capstone Industrial Education Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.3.1	Identify various group cultures that may compose target populations for programs
7.5.4	Serve ad advisor to educational suppliers in development of new resources and instructional materials
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
8.2.2	Write a rationale for a research study including a review of literature
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.4.2*	Formally review and revise preliminary draft of research report
8.4.3	Complete final draft of research report
8.6.2	Inspect research reports for adequate descriptions of the major elements of the research study
8.6.3	Evaluate the sampling procedures of research reports
9.2.8**	Use computer to assist in analyzing test results
	SECOND-LEVEL TASKS
8.4	Write research reports

Code Number	Task

FIRST-LEVEL TASKS

No first-level task was rated as low as "slightly important" by either group.

*The junior-senior high school group rated this as "unimportant"; the capstone group as "slightly important."

**Both groups rated this task as "unimportant."

Summary of the Junior-Senior High School and Capstone Teacher Groups

There were no significant differences in length of teaching experience between the junior-senior high school and capstone industrial education teacher groups in years of teaching experience.

Junior-senior high school as compared with capstone industrial education teachers reported performing third-level tasks with the same frequency on 314 of the 327 tasks.

Both junior-senior high school and capstone industrial education teachers reported that they do not perform 27 third-level and five second-level tasks.

Junior-senior high school as compared with capstone industrial education teachers responses showed that they attach the same importance value to 324 of the 327 third-level tasks.

Both junior-senior high school and capstone industrial education teachers responded with low importance ratings to 11 third-level and one second-level task.

These data seem to indicate that junior-senior high school and capstone industrial education teachers in Wisconsin do not vary appreciably in the frequency of performance nor in importance attached to their professional tasks.

THE SENIOR HIGH SCHOOL AND CAPSTONE INDUSTRIAL EDUCATION TEACHER GROUPS

Teaching Experience

Data presented in Table 38 show the number and percentage of Wisconsin junior and junior-senior high school industrial arts teachers reporting length of teaching experience in each of five categories. It

may be seen in the "3 - 5" category that there are 12 percent more capstone than senior high school teachers. In the "6 - 10" category there are 6.6 percent more capstone than senior high school teachers. In the remaining two categories, "11 - 15" and "More than 15," there are larger percentages of senior high school than capstone teachers. However, these are not significant differences according to the Kolmogorov-Smirnov two-sample test.

TABLE 38

Teaching Experience of 196 Wisconsin Senior High School and 142 Capstone High School Industrial Education Teachers

Teaching Experience in Years	Senior High School		Capstone	
	N	%	N	%
1 - 2	37	18.9	17	12.0
3 - 5	33	16.8	41	28.8
6 - 10	41	20.9	39	27.5
11 - 15	30	15.3	18	12.7
More than 15	55	28.1	27	19.0
Totals	196	100.0	142	100.0

Frequency

Data in this section are used to compare the frequency of task performance of senior high school with capstone industrial education teacher groups.

Significance studies. Data are presented in Table 39 which show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were

found to be significantly different when comparing frequency responses of senior high school with capstone industrial education teacher groups.

Three hundred nineteen, or 97.5 percent, of the 327 third-level tasks were found to have no significant difference between responses of the two groups. This indicates senior high school and capstone teacher groups reported performing all but eight of the third-level tasks with the same level of frequency.

TABLE 39

Number and Percentage of "No Significant" and "Significant" Differences of Response to Frequency of Third-Level Tasks Among Senior High School and Capstone Industrial Education Teacher Groups

		Third-Level Task Differences				
		"No Significant"			"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	53	98.2	1	1.8
3.0	Design Instruction	44	44	100.0	0	0.0
4.0	Nurture Humaneness	26	26	100.0	0	0.0
5.0	Facilitate Learning	39	37	94.9	2	5.1
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	36	94.8	2	5.2
8.0	Utilize Research	33	33	100.0	0	0.0
9.0	Evaluate Instruction	22	21	95.5	1	4.5
10.0	Evaluate Programs	23	21	91.3	2	8.7
	Totals	327	319	97.5	8	2.5

A comparison of medians of performance ratings of task performance of the senior high school and capstone industrial education teacher groups was made and may be seen in Table 40. The reader may observe the direction of differences and the significance level for each task.

TABLE 40

Third-Level Tasks for which Statistically Significant Differences in the Frequency of Task Performance were found between Wisconsin Capstone and Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Frequency of Task Performance		Significance Level
		Capstone	Sr. H. S.	
2.7.2	Consult with industrial and educational advisory board	2.928	1.343	.05
5.3.5	Plan individualized instruction with students	4.350	3.366	.05
5.5.3	Provide experiences for some students to prepare them for entry into appropriate industrially related occupations or to develop a base for advanced occupational education	4.825	3.875	.05
7.2.3	Initiate and organize special community service committees as needed	1.636	1.066	.01
7.7.7	Observe student-teachers' performance in the classroom	1.428	1.115	.05
9.4.1	Analyze and interpret results of instructional measurement	4.000	3.071	.05
10.1.6	Consult advisory committees to determine quality of instructional program	2.642	1.428	.01
10.3.1	Assess the degree of student achievement of program objectives	4.676	3.976	.05

Low frequency ratings. Tasks receiving median values of 1.499 or less were those characterized by the respondents as "do not perform." It can be observed in Table 41 that 28 third-level and five second-level tasks were rated as "do not perform" by both the senior high school and capstone teacher groups.

TABLE 41

Tasks Receiving Low (Do Not Perform) Frequency Ratings
by Both Senior High School and Capstone
Industrial Education Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.2.8	Select published taxonomy or develop a taxonomy of industry
2.3.1	Identify various group cultures that may compose target populations for programs
7.3.3	Serve as class advisor
7.3.4	Sponsor student club activities
7.5.1	Organize and conduct workshops and in-service educational programs
7.5.2	Develop adult evening extension programs
7.5.3	Initiate remedial and summer programs for students
7.5.4	Serve as advisor to educational suppliers in development of new resources and instructional materials
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
7.6.3	Develop written instructional materials for publication
7.7.2	Prepare the class for the arrival of student-teachers
7.7.3	Assign teaching responsibilities to student-teacher
7.7.4	Create situations so that the student-teacher can initiate the instruction activities
7.7.5	Hold conferences with student-teacher regarding his performance, progress and problems
7.7.7	Observe student-teachers' performance in the classroom
8.2.2	Write a rationale for a research study including a review of literature

Code Number	Task
	THIRD-LEVEL TASKS
8.2.4	Select and describe the research design to be used in a proposed research study
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.2.8	Prepare a budget estimate in fiscal terms for a research study
8.2.9	Submit research proposal to appropriate funding bodies
8.4.1	Complete preparation of preliminary draft of research report, e.g.: introduction, methods, body , conclusions, implications, bibliography, appendices
8.4.2	Formally review and revise preliminary draft of research report
8.4.3	Complete final draft of research report
8.5.3	Organize and set-up pilot programs in cooperation with other researchers
8.6.6	Review the analysis of research data
9.2.8	Use computer to assist in analyzing test results
9.3.5	Administer standardized tests
	SECOND-LEVEL TASKS
7.5	Develop programs of professional service
7.6	Contribute to literature of the field through technical and/or professional writing
7.7	Supervise student teachers
8.2	Prepare proposals for researching a problem
8.4	Write research reports
	FIRST-LEVEL TASKS
	No first-level tasks were rated "do not perform" by either group.

Importance

Data are presented in this section are used to compare the importance attached to tasks by the senior high school and capstone industrial education teacher groups.

Significance studies. Data presented in Table 42 show the number and percentage of third-level tasks which were not found to be significantly different as well as those that were significantly different when comparing importance attached to tasks by senior high school teacher and capstone teacher groups.

Three hundred twenty-two, or 98.5 percent, were found to have no significant difference. This indicates senior high school and capstone teachers reported for all but five third-level tasks the same view of the level of importance

TABLE 42

Number and Percentage of "No Significant" and "Significant" Differences of Response to Importance of Third-Level Tasks Among Senior High School and Capstone Industrial Education Teacher Groups

		Third-Level Task Differences				
			"No Significant"		"Significant"	
Code	First-Level Task	N	N	%	N	%
1.0	Improve Individual's Competencies	15	15	100.0	0	0.0
2.0	Design Programs	54	54	100.0	0	0.0
3.0	Design Instruction	44	44	100.0	0	0.0
4.0	Nurture Humaneness	26	25	96.1	1	3.9
5.0	Facilitate Learning	39	37	94.9	2	5.1
6.0	Manage the Learning Environment	33	33	100.0	0	0.0
7.0	Provide Professional Service	38	37	97.4	1	2.6
8.0	Utilize Research	33	33	100.0	0	0.0
9.0	Evaluate Instruction	22	22	100.0	0	0.0
10.0	Evaluate Programs	23	22	95.6	1	4.4
	Totals	327	322	98.5	5	1.5

A comparison of medians of importance ratings for tasks of the senior high school and capstone industrial education teacher groups may be seen in Table 43.

Low importance ratings. Tasks receiving median values of 1.500 to 2.499 were rated "slightly important"; those 1.499 and less were rated "unimportant." Both categories were considered to be low importance ratings. It can be seen in Table 44 that 8 third-level tasks and one second-level task were rated as "slightly important" or lower by both senior high school and capstone teacher groups.

TABLE 43

Third-Level Tasks for which Statistically Significant Differences in the Importance of Task Performance were Found between Wisconsin Capstone and Senior High School Industrial Education Teachers

Item Code	Third-Level Task	Median of Importance of Task Performance		Significance Level
		Capstone	Sr. H. S.	
4.1.1	Encourage students to think of alternatives and to recognize knowledge as imperfect, incomplete, and tentative	4.705	3.972	.01
5.3.1	Use processes of perceiving, communicating, knowing, co-responding patterning, decision-making, creating, valuing, problem solving, and learning in interacting with students	4.705	4.052	.05
5.5.3	Provide experiences for some students to prepare them for entry into appropriate industrially related occupations or to develop a base for advanced occupational education	4.789	4.142	.05
7.7.8	Offer criticism, encouragement and suggestions in joint evaluation with student-teacher	3.333	4.812	.01
10.1.6	Consult advisory committees to determine quality of instructional program	4.000	3.000	.05

TABLE 44

Tasks Receiving Low (Slightly Important) Importance Ratings by Both Senior High School and Capstone Industrial Education Teacher Groups

Code Number	Task
	THIRD-LEVEL TASKS
2.3.1	Identify various group cultures that may compose target populations for programs
7.6.2	Write reviews of new tests, instructional aids, and media for education journals
8.2.2*	Write a rationale for a research study including a review of literature
8.2.5	Select a population for a particular research study
8.2.7	Develop a management strategy for the control of the research study
8.4.2	Formally review and revise preliminary draft of research report
8.4.3*	Complete final draft of research report
9.2.8*	Use computer to assist in analyzing test results
	SECOND-LEVEL TASKS
8.4	Write research reports
	FIRST-LEVEL TASKS
	No first-level task was rated as low as "slightly important" by either group.

*The senior high school group rated this task as "unimportant"; the capstone group rated it "slightly important."

Summary of the Senior High School and Capstone Teacher Groups

There were no significant differences in teaching experience between senior high school and capstone industrial education teacher groups.

Senior high school as compared with capstone industrial education teachers reported performing third-level tasks with the same frequency on 319 of 327 tasks.

Both senior high school and capstone industrial education teachers reported that they do not perform 28 of the third-level and five of the second-level tasks.

Senior high school as compared with capstone industrial education teacher responses showed that they attach the same importance value to 322 of the 327 third-level tasks.

Both senior high school and capstone industrial education teachers responded with low importance ratings to eight of the same third-level tasks and to one of the second-level tasks.

These data seem to indicate that senior high school and capstone industrial education teachers in Wisconsin do not vary appreciably either in frequency of performance nor in importance attached to their professional tasks.

SUMMARY

This report is of a study of the differences, if any, between the responses of certain industrial education teacher groups to the frequency and importance of the professional tasks they perform.

These industrial education teacher groups are Wisconsin:

1. junior high school industrial arts teachers.
2. junior-senior high school industrial arts teachers.
3. senior high school industrial education teachers.
4. capstone industrial education teachers.

More specifically, for each combination of the above groups data were presented in response to these questions:

1. What differences, if any, exist between each set of two teacher groups in their response to the frequency with which they perform their professional tasks?

2. What differences, if any, exist between each set of two teacher groups in their response to the importance they attach to their professional tasks?

Data presented in Table 45 summarizes the findings.

TABLE 45

Summary of Numbers of Significant Differences Between Sets of Teacher Groups on Frequency of Performance and Importance They Attach to Their Professional Tasks

Sets of Teacher Groups Compared	Number of Third-Level Tasks		
	Total N	Frequency	Importance
Junior; Junior-Senior	327	6	1
Junior; Senior	327	4	1
Junior; Capstone	327	18	8
Junior-Senior; Senior	327	5	1
Junior-Senior; Capstone	327	13	3
Senior-Capstone	327	8	5

The largest number of significant differences found between any two sets of teacher groups was for the frequency responses to third-level tasks of the Wisconsin junior high school industrial arts teacher and the Wisconsin capstone industrial education teacher. In this instance, 18 of the 327 tasks were found to be significantly different. This means that 309 of these tasks, or 94.5 percent, were not significantly different. Each of the other sets of comparisons revealed even fewer significant differences.

The largest number of significant differences was eight, or 2.4 percent, of the 327 importance items in the comparisons between Wisconsin junior high school industrial arts teachers and capstone industrial education teachers. Each of the other sets of comparisons revealed even fewer significant differences.

CONCLUSIONS

It would seem, on the basis of the data presented, that these teacher groups tend to be drawn from one population in terms of their perceptions of both frequency and importance of their professional tasks.

RECOMMENDATIONS

For those tasks for which responses to either frequency or importance were found to be significantly different between a given set of teacher groups, examination should be made to ascertain the implications for instructional programs for development of these tasks in these teachers for their professional roles.

It would seem that a rather large portion of professional task development for each of these types of teachers could be common. Moreover, such differences as were found could quite likely be handled by individualized attention.

The final segment of this study, Part VIII, will deal with jury responses to the importance of these professional tasks for secondary school industrial education teachers. This should provide an additional level of validation of the professional tasks that should be required of these teachers.